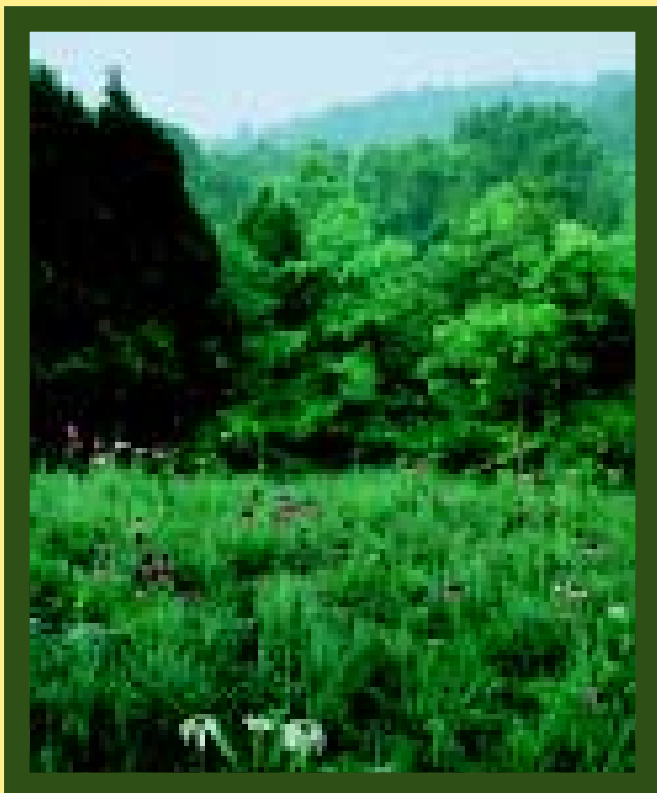
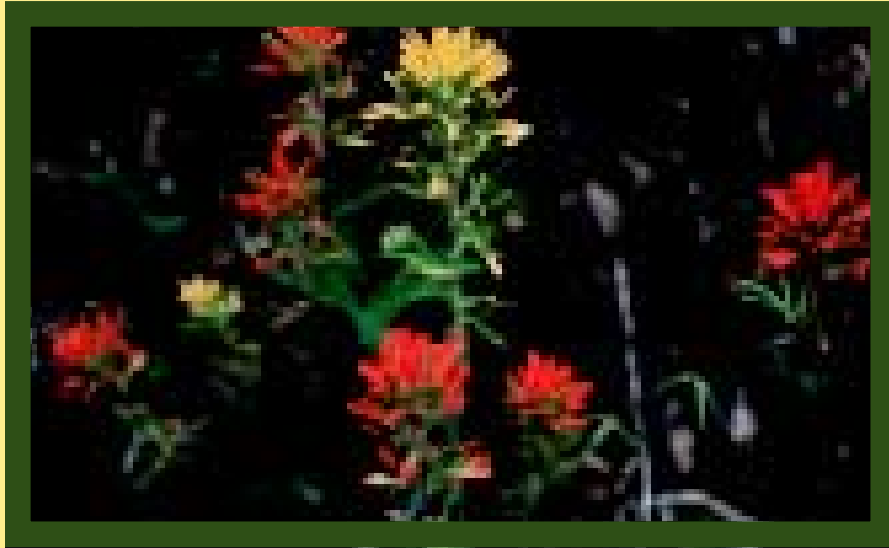

Land & Air & Water

Volume 10 Number 2
Summer 1999



Kentucky Natural Resources and Environmental Protection Cabinet

**Kentucky Natural Resources
and
Environmental Protection
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***Land, Air & Water* magazine is changing**

Land, Air & Water is taking on a new look. The publication is now printed on coated recycled paper. Changing to a coated paper stock will provide our readers with sharper images and photographs and an overall attractive publication.

But don't worry — the quarterly publication is still recyclable and is still graded as sorted office paper. Subscribers of the publication can continue recycling each issue in the same manner as they previously recycled it.

The Natural Resources and Environmental Protection Cabinet encourages the readers of *Land, Air & Water* to recycle their copies whether at home or at the office. Please share copies with co-workers and family members and dispose of them properly, so that the paper product may be reused for other goods.

If you have any questions concerning the publication, please call the editor at (502) 564-5525.

Nominees sought for Environmental Excellence Awards



The 24th Annual Governor's Conference on the Environment is planned for early fall. Dates for the conference had not been finalized at press time.

However, waste issues will be the theme of the conference this fall.

Each year at the conference, Environmental Excellence Awards are given for activities that contribute to the stewardship of Kentucky's natural resources.

Individuals, businesses and organizations can apply or nominate others.

However, all nominations must be made on an official nomination form.

The awards categories are Forestry, Mining Reclamation (Eastern Kentucky), Mining Reclamation (Western Kentucky), Leadership in Pollution Prevention, Environmental Education, Energy Conservation, Soil Conservation, Community Environmental Leadership, Industrial Environmental Leadership, and Heritage Land Conservation. An activity summary that tells about the nominee's environmental achievements in 500 words or less must accompany the nomination form.

To receive an official nomination form, call (502) 564-7320 or go to the conference web site at <http://www.nr.state.ky.us/nrepc/govconf/govaward.htm>

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Cover

The cover photos were taken at Thompson Creek Glade in LaRue County. Scarlet Indian Paintbrush (*Castilleja coccinea*) top; Purple coneflowers (*Echinacea purpurea*) left; and Dwarf Crested Iris (*Iris cristata*), Hoary Pecune (*Lithospermum canadense*), and Scarlet Indian Paintbrush (*Castilleja coccinea*) right. Photography by Thomas G. Barnes, associate extension professor, Department of Forestry, University of Kentucky.



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Commonwealth Cleanup Week promotes

concern for the environment

Kentuckians "spring cleaned" the Bluegrass during the first Commonwealth Cleanup Week, March 20-27.

Each division and regional office of the Natural Resources and Environmental Protection Cabinet including the Department for Environmental Protection (DEP), Department for Surface Mining Reclamation and Enforcement (DSMRE), and the Department for Natural Resources (DNR) cleaned up dumps throughout the Commonwealth. A total of 140 cabinet employees participated including 18 employees from the Kentucky State Nature Preserves Commission and seven employees from the Environmental Quality Commission.

Cleanup occurred in 11 counties, three within the PRIDE region – Knott, Bell and Menifee counties, stretching from Hickman County in the west to Knott County in the east, and from Bell County in the south to Grant County in the north.

Final statistics from the regional offices show that the cleanups removed 774 tons of trash; 2,450 tires; 109 tons of metal; 85 appliances; and 486 miscellaneous bags of trash.

Top right: An excavator from the Ohio County Road Department pulls trash from a pond along Equality-Kinchloe Bluff Road in the western part of the county. This Commonwealth Cleanup effort, led by Robbie McGuffey and personnel from the Bowling Green Waste Management, Water and Air Quality field offices, produced 63 tons of trash and 280 tires.

Middle right: Gov. Patton (right) and Secretary James Bickford discuss cleanup of a dump on Ninevah Road in Franklin County.

Bottom right: House Speaker Jody Richards, D-Bowling Green (left), and Gov. Patton toss debris into a front-end loader in Franklin County.

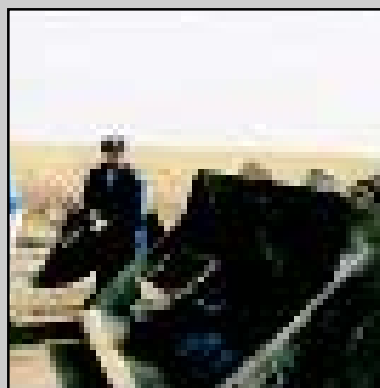
Bottom left and middle: Employees from the Frankfort Regional Office of DEP work on the Ninevah Road cleanup.

To report an illegal dump, call your county solid waste coordinator or (888) NO DUMPS.

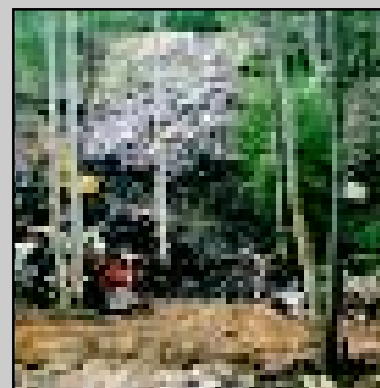


Right: With the help of a front-end loader from Hopkins County, a Madisonville DEP employee loads trash collected along an old surface mine haul road south of Madisonville. Bill Bowen and his Commonwealth Cleanup '99 team collected 100 tons of trash, 680 tires and cleaned four miles of roadside. Team members included employees from the Madisonville Division of Forestry, DSMRE, Abandoned Mine Lands, Air Quality, Water and Waste Management offices.

All photos provided by Natural Resources and Environmental Protection Cabinet employees



Top and right: Natural Resources and Environmental Protection Cabinet employees from the Pineville Division of Forestry, Middlesboro and London DSMRE, London Waste Management, Air Quality and Abandoned Mine Lands regional offices along with Secretary James Bickford contributed to the Commonwealth Cleanup '99 effort. Trash was pulled from a Bell County hillside in the southwestern part of the county near Frakes. Seven hundred tires, 138 tons of trash and 75 tons of metal were cleaned up.



Kentucky's underground storage tank (UST) program is making great strides compared to its counterparts across the nation.

Representatives from the Kentucky Division of Waste Management's UST Branch attended the 11th Annual Underground Storage Tank/Leaking Underground Storage Tank Conference in Daytona Beach, Fla., in March. While there was no formal statistical reporting or program evaluation, delegates had the chance to learn what other states were up to and how their programs differ.

UST Branch Manager Lori Terry, Administrative Support Section Supervisor Kathy Scott, and Administrative Specialist II Gayleen Mauer discovered that Kentucky is far ahead of many programs on compliance rates, database access, inspections and quick review of documents.

"We are looking good in all areas," Terry said. "A lot of states can't say that."

For example, Terry said one Southern state has a 100 percent compliance inspection rate, but it has 33,000 contaminated sites.

Terry listed many of the reasons Kentucky's program is at the forefront:

Electronic database. The branch's imaging system allows staff to access and view any UST facility file with the click of a mouse. Tank status, owner addresses and geographic location will be recalled with the same ease. Many other states' information is only listed by site name. Reports are easily generated and staff has access to files from their desks. Implementing the new technology hasn't been without its problems. "Getting there has been tough," Terry said, "but it will make things easier."

Form letters. Using a "template" to address certain situations saves time by allowing staff or the computer to just plug in the information specific to each case. Most states start from scratch every time they must send written correspondence.

Inspections. Inspectors are based across the state in 10 regional field offices and use electronic technical compliance inspection (TCI) forms. Some states work without inspectors and electronic forms. Field inspectors have performed about 1,300 inspections from Jan. 1 to March 1, 1999.

Remediation. Cleanup is Kentucky's highest priority. Some states allow the availability of fund money to decide if cleanup is necessary. Kentucky has about 2,500 sites that require closure or corrective action.

Review times. Kentucky reviewers have a 90-day deadline to review every document that's part of a closure, site investigation or corrective action plan. Some states have a three- to five-year backlog on reviews.

The branch's 18 permit reviewers meeting their time clock is a critical part of the branch's customer service efforts, Terry said.

UST program is strides ahead of other states

By Anya Armes Weber
Division of Waste Management



Cindy Palmgreen, a reviewer in UST's closure and corrective action section, said she appreciated the good news from Daytona Beach.

"It's encouraging," she said. "Sometimes it's hard to believe because things can seem so overwhelming." Palmgreen works with about 150 sites in nine counties. She said the branch's self-imposed 90-day deadline is important. "It's a good goal, and some documents are reviewed sooner."

The Environmental Protection Agency's Dec. 22, 1998, deadline has kept the UST Branch busy for months, but the activity is paying off. Kentucky ranks at the top of the compliance issue with 94.2 percent. The federal mandate was intended to help protect the nation's groundwater against releases of contaminants, particularly petroleum products, from UST systems. It requires systems to have corrosion protection, spill and overfill protection and continue a method of release detection.

Terry said she is proud of the entire UST staff, including seven temporary

workers, along with the field inspectors who inspect the tank systems.

"I hope the UST/LUST conference has given the branch and inspectors a confidence boost and a feeling of pride in their efforts," Terry said.

"I feel great about everything we've done," she said. "When you're sitting in your own state, you never see how you rate or how you compare with the other states. EPA doesn't directly tell you."

The conference was even profitable for Kentucky, whose exhibit for the "all states fair" won first prize. The state program received paid registration (a \$1,500 value) for next year's conference for a PowerPoint slide presentation highlighting the workflow and imaging system Kentucky's branch recently began using.

Mauer said she is "thrilled by the success." The goal of the fair was to encourage states to network and share information about their programs. "What we demonstrated must have been a big hit as well. Since the conference, several states have contacted me with questions about our system. It seems they are wanting to go in the same direction using workflow and imaging in their program," Mauer said.

"Some states don't have a database, so all they can do is manually count sites," she said. "That makes it difficult to do historical comparisons with UST data."

Kentucky's exhibit was one of the most popular, Mauer said. Terry and Scott pitched in by answering questions from other delegates.

Continued on Page 5

Caldwell, Lincoln and Jefferson counties boast state poster contest winners

By Anya Armes Weber
Division of Waste Management

Winners of the Commonwealth Cleanup Week poster contest were recognized during a ceremony at the Capitol on March 18.

Shelley Leigh Traylor of Princeton, a student at the Christian School for Excellence in Caldwell County, is the winner in the first and second grades category.

Leigh Helm McGuffey of Stanford, a student at Hustonville School in Lincoln County, is the winner in the third through fifth grades category.

Martin B. Clark of Louisville, a home-school student in Jefferson County, is the winner in the sixth through eighth grades category.

All three students won \$100 savings bonds in addition to the \$50 savings bonds for being county winners and T-shirts for being school winners.

Shelley and Leigh's schools will receive a \$1,500 grant for an environmental education program.

In honor of Martin, \$1,500 will be granted to Christian Home Education of Kentucky for the development of a similar curriculum to be made available to parents who home school their children.

County winners' artwork was displayed at the main post office branches in their communities.

Shelley's, Leigh's and Martin's winning artwork will be on display at this autumn's Governor's Conference on the Environment.

Commonwealth Cleanup Week was created by House Joint Resolution 121, sponsored by House Speaker Jody Richards, D-Bowling Green, and passed by the 1998 General Assembly. The legislature earmarked \$75,000 for the statewide cleanup effort.

Cosponsors of the contest were the U.S. Postal Service and Touchstone Energy.



Buford White, district manager of the Kentuckiana District, U.S. Postal Service, presents plaques to student winners (left to right) Shelley Leigh Traylor, Leigh Helm McGuffey and Martin B. Clark. The U.S. Postal Service was a partner in Commonwealth Cleanup Week. Creative Services photo

Woodford County solid waste coordinator Brown retires

By Anya Armes Weber
Division of Waste Management



Cy Brown

Cy Brown, Woodford County's first solid waste coordinator, retired in February.

This is Brown's second retirement. He retired from a civilian position with the Department of Armed Services in

1990. He began work as part-time solid waste director in 1991, then was hired full time in July 1992. Brown is credited with Woodford County's booming recycling efforts and its growing facilities on Beasley Drive.

"After seven years, when I look back it's hard to believe," Brown said. "We started in the back of a trailer." Times were discouraging then, Brown said. He brought his wife and daughter to work with him to help.

Now Woodford County's recycling rates are leading the region, besting bigger communities like Fayette and Madison counties. "That makes me happy," Brown said. And the modernization and convenience of the center are what he's most proud of.

"Our facility is a place people can bring recyclables and appliances, trash and

metals, motor oil and paint ... just about everything at very little cost, when there is a cost."

In addition to drive-through dropoffs, workers at the center process the city of Versailles' "blue bags" from neighborhood collections. Volume has been overwhelming.

Last year, the center processed 2.2 million pounds of recyclables. Through February of this year, Brown said the center has processed 12 loads of materials, each load weighing 25,000 pounds. "We will top 2 million pounds this year," he said.

The center is expanding this summer to add a conveyor system and scales. Brown says he can't take all the credit for the center's success. City and county

Continued on Page 5

America Recycles Day youth prize winner is from Kentucky

By Ann Brandt
Division of Waste Management



Left photo: Cabinet Secretary James E. Bickford, right, presents an Admiral Certificate to Cecil Roberts. Cecil won a trip to Walt Disney World when his pledge card to buy recycled was drawn from 2.1 million entries in the 1998 America Recycles Day contest. With Cecil are his sister, Della Ann Roberts, and their parents, Connie and Bill Cunigan.

Right photo: Cecil was presented a certificate for airline tickets to Walt Disney World by America Recycles Day (ARD) national co-chairs, from left, Fran McPoland and Will Ferretti; and Chris Voell, a member of the ARD National Executive Committee and representative of the Solid Waste Association of North America. Photos by George Ferrell, Jackson County Sun



Cecil Roberts, a fourth-grader from Tyner, Ky., pledged to recycle more and to buy recycled products — and he's going to Disney World! His pledge card entry in the America Recycles Day contest was drawn from 2.1 million entries from across the country, making him the youth prize winner of a family vacation package to Walt Disney World. The prize includes round-trip airfare and lodging for four people courtesy of Disney and the Solid Waste Association of North America (SWANA).

The prize was presented to Roberts on Friday, Feb. 26, at Tyner Elementary School in Jackson County. National co-chairs of America Recycles Day and a representative of SWANA, along with state and local officials, attended the school assembly to present the prize. Natural Resources and Environmental Protection Cabinet Secretary James Bickford presented Cecil with a Disney backpack full of other Disney goodies for his trip, including a Mickey Mouse watch, camera and hat.

Cecil, son of Connie and Bill Cunigan of Annville, Ky., was one of 80,000 Kentucky students in 17 counties served by Southern Appalachian Recycling (SAR), a nonprofit environmental education organization. SAR liaisons taught "Green Consumer" units on buying recycled, distributed pledge cards for students to enter the nationwide contest, sponsored regional contests on designing displays using recycled materials, and distributed instructional materials.

Vivian Rudd, executive director of SAR, said that all the students pledged to recycle last year. "You are all winners for recycling," she told the assembled Tyner students.

Bickford applauded SAR's efforts for the event. "We're going to push America Recycles Day," he said. "From now on, you're going to see a lot more recycling."

SAR was represented on the Statewide Planning Committee for America Recycles Day in Kentucky. Nearly 100 events were held across the state in observance of America Recycles Day, Nov. 15.

Speakers at the presentation ceremony included James E. Bickford; Vivian Rudd; America Recycles Day national co-chairs Fran McPoland, federal environmental executive, and Will Ferretti, executive director of the National Recycling Coalition; Chris Voell, director of technical services group, the Solid Waste Association of North America; and George Karpin, U.S. Postal Service.

Additional photos and information are available at the NRC web site at <http://www.nrc-recycle.org/>

Cy Brown retires

Continued from Page 4

citizens and officials have been supportive, he said.

"It took a lot of selling to get to this point," Brown said, "but we had a receptive audience. We showed them what we are doing and what we could be doing. They believed in the good things we do."

Brown said he "worked harder to make work easier" by putting extra effort into planning when he made reports to magistrates. "They would listen to me and respected my opinion."

Brown will stay with the county for a few months to train the new solid waste director, Wade Johnson, whom he calls "a great replacement." He also plans a trip to Europe and to spend free time writing.

But "I won't ever give up on it," Brown says of Woodford County's solid waste efforts. "I feel like it's my baby. I kind of hate to leave it, but there are other things I want to do."

UST program is strides ahead of other states

Continued from Page 3

Attending a conference also involves hard work organizing and presenting sessions. Lajuanda Haight-Maybriar, supervisor of the closure section, was involved from the start by attending several planning meetings with representatives from EPA. Their task was to develop session topics, agendas and speakers. Scott was a panel member for risk communication training and was a note taker for other sessions.

Terry said the conference did provide new information on compliance methods, leak detection, and spill and overfill protection. The branch will add these to its priorities to ensure the quality of the state's tank systems. The hard work bears an important reward.

"We haven't put anything on the back burner, and our environment is better for it," Terry said.


The UST's web site is <http://www.nr.state.ky.us/nrepc/dep/waste/programs/ust/usthome.htm>

Fridays and Saturdays in April were very busy for the Lexington-Fayette Urban County Government as it, along with many volunteers, tackled the largest single urban reforestation project in the nation. The goal of the project was to create a riparian forest buffer habitat along Cane Run Creek in Coldstream Park off Newtown Pike adjacent to the intersection of I-64 and I-75. The establishment of riparian forest buffers represents part of the Lexington-Fayette Urban County Government's storm water management program.

What is a riparian buffer habitat and why is it important? Riparian habitats are lands directly adjacent to streams, rivers, lakes, ponds or other bodies of water. Streamside forests are critical to the protection and enhancement of water resources. Riparian forest buffers act as filters by removing sediments and other suspended solids from surface runoff. These forest buffers also stabilize streambanks, reduce streambank erosion, provide wildlife habitat, reduce moderate flooding, and prevent extreme water temperature fluctuations, which can be harmful to aquatic organisms.

Cane Run Creek is the recharge aquifer for the Royal Springs aquifer that the city of Georgetown uses for its

The Reforestation of Lexington



The riparian reforestation project of Cane Run Creek consisted of planting seventeen native species covering approximately 77 acres.

**By Gwen Holt, Division of Forestry
Photos by Doug Greene and David W. Swenk,
Lexington-Fayette Urban County Government**

drinking water. The riparian reforestation project of Cane Run Creek consisted of planting seventeen native species covering approximately 77 acres. More than a thousand volunteers, including several school groups, assisted with the planting of 35,400 trees. "This project was done

with virtually no tax dollars," said David Swenk, the Lexington-Fayette Urban County Government city forester.

Some of the sponsors of this project included the National Tree Trust, the Green Space Commission, Kentucky-American Water, Lexmark International, Kentucky Utilities, Commonwealth Technologies, PDR Engineers and Lexington Directions. The Kentucky Division of Forestry and the National Tree Trust provided many of the seedlings. The Lexington-Fayette Urban County Government Parks and Recreation Department and Hillenmeyer Nurseries helped coordinate the event.

The Lexington-Fayette Urban County Government plans to establish 80 to 100 acres of riparian forest habitat each year. "More cities need to be aware of the environmental benefits of incorporating urban forest management," said Swenk. For more information about urban forestry, contact the Kentucky Division of

Forestry at (502) 564-4496.



Cane Run Creek, top center, was experiencing severe erosion. The reforestation project will help stabilize the streambanks and improve the water quality of the stream. Approximately a thousand volunteers, far left, turned out to help with the tree planting at Cane Run Creek in April 1999.

The black material, above, surrounding the seedlings are weed mats. The mats allow water to soak through but do not allow sunlight to penetrate which deters weed growth.



Land News

Kentucky Biodiversity Council approves grants

By Joe Dietz
Dept. for Natural Resources

The Biodiversity Council met on March 19, 1999, to consider funding requests and approve \$9,500 in grants. The council has received contributions from Toyota Motor Manufacturing USA for projects that will promote education about and preservation of biological diversity in Kentucky. Chairman Ward Wilson and the council approved the following grants:

Biodiversity Curriculum

- Development of a biodiversity curriculum for Kentucky schools based on Kentucky ecosystems and populations. The \$6,000 request from Jane Wilson, director of the Kentucky Environmental Education Council, will provide full funding of the curriculum guides. Ms. Wilson will work with universities to develop the curriculum and have it printed later this year.

Medley Herbarium

Project - This request from Julian Campbell, Kentucky Chapter of The Nature Conservancy, is to assist with funding for an herbarium at Western Kentucky University's Center for Biodiversity Studies. A large collection of vascular plants has been donated to the center and must be processed and labeled to make it accessible for public study. The total cost of the project is estimated to be about

\$7,500 and the request is for \$1,000 from the council.

Travel - The council voted to send Biodiversity Council Chairman Ward Wilson to the National Biodiversity Education Leadership Institute in Florida at a cost not to exceed \$250. Mr. Wilson will report to the council the results of his trip and prepare an article for the newsletter.

Garlic Mustard - The council voted to grant an additional \$500 to the Kentucky State Nature Preserves Commission for continued support of a national garlic mustard research project.

Newsletter and Web Site Development - The council voted to use the remaining \$1,750 for production and distribution of future *Kentucky Alive* newsletters.

For additional information, please go to the council's web site at <http://www.nr.state.ky.us/nrepc/dnr/biodiverse/dnrbio.htm>

You can contact Biodiversity Council Chairman Ward Wilson at (502) 266-7655 or wilsonw@ctienv.com

Project Food, Land & People

By Martin Bess
Division of Conservation

Project Food, Land & People (FLP) is a non-profit organization created in 1988 to develop and distribute a national K-12 curriculum to compliment existing agricultural, environmental and natural resource conservation education programs. The goal of FLP is to provide educators

with high-quality, balanced and easily integrated classroom materials that deal with the complexity and interdependence of natural resources and people.

In Kentucky, teacher training and distribution of the curriculum is facilitated by the Kentucky Food, Land & People Partnership, which is the licensed affiliate for the state.

Other interesting facts about Project FLP:

There are approximately 50 pre-K through 12 lesson plans in the collection, which have been developed, piloted and field tested nationally by educators.

FLP lessons and activities are modeled after Project Learning Tree, WET and WILD, and teachers are

encouraged to utilize each of them.

To receive the FLP curriculum, teachers must have six contact hours of training.

There are approximately 75 facilitators trained to provide educator workshops throughout the state on the use of the Food, Land and People Resources for Learning. There are 415 educators that have already been through the six-hour workshop to receive the FLP curriculum. Two facilitator training sessions are planned for 1999. The dates and locations have not been determined.

To find out how you can participate, contact Martin Bess at (502) 564-3080 or Kentucky FLP Coordinator Rayetta Boone at (502) 564-4696.

Abandoned Mine Lands has relocated

By Steve Hohmann
Division of Abandoned Mine Lands

The Division of Abandoned Mine Lands (AML) recently moved to new offices. Since 1982, AML had occupied two office buildings on Teton Trail in East Frankfort. New offices were needed to house increasing AML projects, complaint files and division personnel. The number of employees have increased as more projects to reclaim abandoned mine sites and provide water lines have been approved. Currently, the AML staff has 19 reclamation and water line projects totaling \$15.5 million.

The new AML location, 2521 Lawrenceburg Road, is just off U.S. Hwy. 127, west of the capital city. The phone number did not change (502) 564-2141.



AML employees Norma Lundy and Larry Leach assist consultant Hershaw Watson, Baker Engineering (left), to review maps of a water line project. AML photo

Preparation is the key to Year 2000 transition

By Karen Landry, Division of Energy

Y2K!

For many people, the term has become synonymous with certain technological disaster upon the arrival of the year 2000. We've heard that computers, computer software, and embedded chips could malfunction, affecting everything from airline travel, traffic signals, and elevators to the coffemaker at home.

What is Y2K?

Years ago, to conserve memory space in computers and microchips, programmers used two-digit codes instead of four to record the year. For example, 88 would mean 1988. This practice continued into the 1990s, even as computer memory became less scarce and less expensive. Many of the computers and microchips controlling devices in our everyday lives may not be programmed to read a four-digit code for the year. So, on Jan. 1, 2000, computers and embedded microchips that are not Y2K "compliant" (the ability of computer software and hardware to function properly when the clock strikes midnight on Dec. 31, 1999) will recognize "00" as the year 1900, not 2000. These systems may shut down, or they could generate incorrect data.

It's a serious issue that has been addressed with attention from all levels of government, financial and banking institutions, public utility companies, and other businesses. Government agencies and private businesses have spent billions of dollars testing computing systems for Y2K compliance.

The Kentucky Division of Energy (KDOE) is coordinating the Y2K Interagency Working Group (Y2K IWG) that includes representatives from the Public Service Commission (PSC), the Kentucky Division of Emergency Management, and the Office of the Governor's chief information officer. The idea for the Y2K IWG was conceived

following a PSC survey of some 800 regulated utilities in August 1998. The survey indicated that while many of the utilities were making good progress in remediation efforts for the Y2K problem, there might be a role for government to play in promoting increased communication across industry lines. This appeared to be particularly true for the two most critical infrastructure industries—electricity and telecommunications.

The Y2K IWG, with advice and assistance from several utility industry officials, sponsored a Y2K Contingency Planning Workshop on March 29 in Lexington. The workshop addressed the interdependencies of the telecommunications and electric systems and examined the Y2K contingency plans of

several of the major electric utility and telecommunication companies in Kentucky. These companies have conducted numerous tests to ensure their systems will function normally during the switchover to the year 2000. In addition to the staffing and monetary resources allocated to remediation efforts, many of these companies have also been involved in the contingency planning process. Contingency planning refers to the steps that will need to be taken to prevent or minimize disruptions if the remediation efforts are not successful.

The workshop provided an excellent forum for these industries to communicate with each other and share information necessary to have adequate backup plans for delivering services in case critical systems do not work properly in the early moments of the new year. While no one is guaranteeing there won't be problems linked to the Y2K bug, most participants at the workshop were confident their systems would continue to operate successfully into the year 2000. In fact, most workshop participants, including government officials, were more concerned about allaying



Continued to Page 11

Kentucky students enjoy and learn



First-Place Team from Caldwell County High School



Second-Place Team from West Carter High School



Third-Place Team from Adair County High School

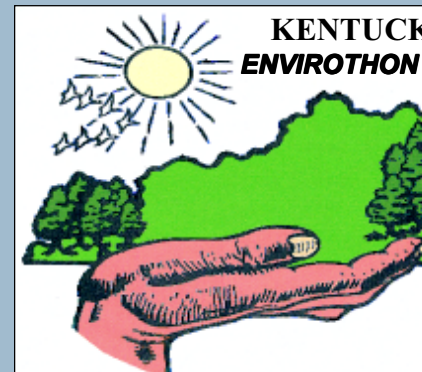
By Martin Bess, Division of Conservation
Photographs courtesy of the Division of Conservation

The Kentucky Association of Conservation Districts and the Division of Conservation announce the winning teams for the first Kentucky Envirothon Competition. The top three teams are First Place: **Caldwell County High School**; Second Place: **West Carter High School**; and Third Place: **Adair County High School**. Site winners were West Carter County High School, soil site; Adair County High School, aquatic site; and Caldwell County High School, forestry, wildlife, and wildfire management sites.

The state competition was held Saturday, April 17, 1999, at the Feltner 4-H Camp in London, Ky. The Envirothon is an international environmental competition for high school students. By winning the state competition, Caldwell County High School will now compete in the National Canon Envirothon Competition to be held in Arcata, Calif. on July 27 through Aug. 1, 1999. The competition will be held on Humboldt University's campus.

There were 27 teams from 25 counties (135 students) that participated in this year's competition. The students were tested on their environmental knowledge in five areas: soils, aquatics, forestry, wildlife, and wildfire management. The students worked as a team to answer the written and hands-on, problem-solving questions. **Wildlife site** -- students were expected to understand and apply wildlife management techniques as well as identify wildlife. **Forestry site** -- students were expected to use a biltmore stick to measure board feet, identify trees and types of leaves, know how to plant a tree, recognize diseases, prepare a tree-planting plan and understand the benefits of trees, and summarize the Kentucky Forestry Conservation Act. **Soil site** -- students were expected to have a general knowledge of soils and Kentucky's physiographic regions,

recognize the importance of soil and landforms, make slope maps, and soil surveys to explain how soil quality, known as surface and testing to measure types of water found in rivers, supply and **Management** to list and



to the National Envirothon in California, receiving a cash prize. The winning school received a plaque and a print from the Kentucky Department of Wildlife and Parks. The third-place team received a plaque and a print from the Kentucky Department of Wildlife and Parks. The third-place team received a plaque and a print from the Kentucky Department of Wildlife and Parks. The third-place team received a plaque and a print from the Kentucky Department of Wildlife and Parks.

Learn from Envirothon competition

Conservation

the physical characteristics of soil, determine soil texture by feel, make determinations, be able to use a soil test kit, identify erosion problems and know how to correct them. **Aquatic site** -- students were expected to define a watershed, know how actions of people affect water quality, know how to protect water quality of surface water, list and explain factors affecting groundwater, measure water quality, explain water pollution, identify organisms in rivers and streams, and discuss water resource issues. **Wildfire management site** -- students were expected to explain the types of fire, discuss types of plants and plant habitats that require fire, discuss why fire is a natural process, know weather topography and fuel effects on fire, understand natural fire breaks and fire as a resource management tool.

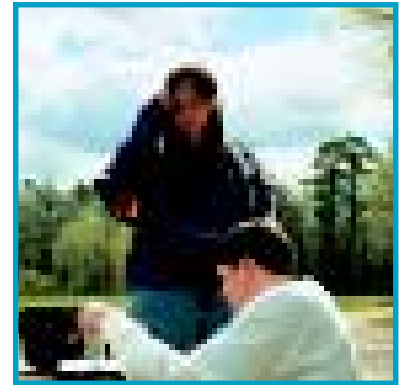
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The first-place team received a paid trip to the National Canon Envirothon Competition in California, with each team member receiving a backpack and \$50 in spending money. The first-place coach received \$250 in educational materials. All three top schools received a framed nature certificate from the Kentucky Department of Fish and Game Resources with an attached acknowledgment of them as Envirothon winners. The second-place winning coach received \$200 to spend on educational materials. Students on the second-place team received backpacks and field guides to native plant and animal species. The third-place winning coach received \$150 in educational materials. Students on the third-place team received backpacks. The student who participated in the competition received a t-shirt with the Kentucky Envirothon logo.



Clay County students participate in the wildlife site.



Students from Lyon County High School test water samples at the aquatic site.



Gwen Holt, Division of Forestry, instructs students at the wildfire management site.



Pete Rayburn, Division of Forestry, watches as students from Clark County High School measure board feet at the forestry site.

The Kentucky Envirothon sponsors were Leggett & Platt Inc., Kentucky Department of Agriculture, Kentucky Farm Bureau, Kentucky Association of Conservation Districts Auxiliary, Kentucky Association of Conservation Districts, Pepsi Cola Bottling Company, Southern States, and Papa John's of London. Others assisting were the Kentucky National Guard, Kentucky Division of Forestry, Kentucky Division of Water, U.S.D.A. Natural Resource Conservation Service, U.S. Forest Service, Laurel County Local Government, Laurel County Conservation District, Kentucky Environmental Education Council, and the Kentucky Division of Conservation.



McCreary County students take soil samples at the soil site.

Preparation is the key to Year 2000 transition

Continued from Page 8

public fear regarding Y2K, recognizing that the key to surviving any crisis is proper planning and remaining calm.

Since no one can predict exactly what will happen as we enter the year 2000, many experts recommend that people prepare for the event as they would for a winter storm. In other words, make sure you have adequate food, water, and other necessary supplies on hand in case transportation and other critical sectors are disrupted. Below is a checklist or guide that should be a part of everyone's emergency preparations. In addition to providing information to prepare you for Y2K, the other items in this checklist can be used as guides to prepare you for other emergencies as well, such as severe winter storms.



Check with manufacturers of any essential computer-controlled electronic equipment in your home to see if that equipment may be affected. This includes fire and security alarm systems, programmable thermostats, appliances, consumer electronics, garage door openers, electronic locks, and any other electronic equipment in which an "embedded chip" may control its operation.



Stock supplies to last several days for yourself and those who live with you. This includes

having nonperishable foods, stored water, and an ample supply of prescription and nonprescription medications that you regularly use.



Similar to preparing for a winter storm, it is suggested that you keep your automobile gas tank above half full.



In case the power fails, plan to use alternative cooking devices in accordance with manufacturer's instructions. Don't use open flames or charcoal grills indoors.



Have extra blankets, coats, hats, and gloves to keep warm. Do not plan to use gas-fueled appliances, like an oven, as an alternative heating source. The same goes for wood-burning or liquid-fueled heating devices that are not designed to be used in a residential structure. Camp stoves and heaters should only be used out of doors in a well-ventilated area. If you do purchase an alternative heating device, make sure it is approved for use indoors and is listed with the Underwriters Laboratories (UL).



Have plenty of flashlights and extra batteries on hand. Don't use candles for emergency lighting. (If you must use candles, do so

with extreme caution, especially around children.)



Examine your smoke alarms now. If you have smoke alarms that are hard-wired into your home's electrical system (most newer ones are), check to see if they have battery backups. Every fall, replace all batteries in all smoke alarms as a general fire safety precaution.



Be prepared to relocate to a shelter for warmth and protection during a prolonged power outage or if for any other reason local officials request or require that you leave your home. Listen to a battery-operated radio or television for information about where shelters will be available.



Check with the emergency services providers in your community to see if there is more information available about how your community is preparing for any potential problems. Be an advocate and support efforts by your local police, fire, and emergency management officials to ensure that their systems will be able to operate at all times.

These web sites have more information about Y2K issues.

Commonwealth of Kentucky Year 2000 Project Office:

<http://www.state.ky.us/year2000/index.htm>

Kentucky Division of Emergency Management:

<http://webserve.dma.state.ky.us>

President's Council on Year 2000 Conversion:

<http://www.y2k.gov/>

Federal Emergency Management Agency (FEMA):

<http://www.fema.gov/y2k/>



Water News

New appointments made to Kentucky Water Well Certification Board

By Peter Goodman
Division of Water

The following people were recently appointed to the Kentucky Water Well Drillers Certification Board by Gov. Paul E. Patton. Their terms will end Aug. 16, 2001. They are Cheryl W. Bersaglia, McKee, representing the public at large, to replace Mary M. Mueller, Nerinx, whose term has expired; Jerry D. Jones, West Paducah, reappointed, representing rotary tool drilling method; Pat Mackey, Burlington, reappointed, representing cable tool drilling method; Gerald Ferguson, Willard, reappointed, representing cable tool and rotary tool drilling; and Dr. James S. Dinger, Lexington, reappointed, representing a hydrogeologist or hydrologist from the Kentucky Geological Survey. These board members join Vicki Ray, representing the Natural Resources and Environmental Protection Cabinet, and Michael Murray, Princeton, representing the National Groundwater Association and the Kentucky Groundwater Association.

New Consumer Confidence Report rule for drinking water will provide information to consumers

By Maleva Chamberlain
Division of Water

One of the provisions of the 1996 amendments to the Safe Drinking Water Act

requires a community water system to provide its consumers with a Consumer Confidence Report each year. This year, consumers will receive these reports by Oct. 19 and by July 1 in following years.

The Consumer Confidence Report will provide information on the source of the system's drinking water and on the levels of contaminants found in the system's drinking water.

Information about the source of the water must include the type of water (surface, ground, combination); the names of the water bodies or aquifers that supply the raw water and their locations; and, if a source water assessment has been completed, a notice of its availability and how to obtain it.

Information about contaminants that are detected must include the highest test results, range of detected levels, and the likely sources of the contaminants. Information is also required on *Cryptosporidium* and radon monitoring if they are detected.

The reports must also provide information about any other violations, such as failure to monitor and/or report as required or other recordkeeping violations.

Community water systems (public water systems that serve at least 15 service connections used by year-round residents or that regularly serve at least 25 year-round residents) must provide the Consumer Confidence Reports in one of the following ways:

If the system serves a

population of 10,000 or more, it will mail or deliver the report directly to its billed customers. If the system serves a population of 100,000 or more, it must also post the report at a publicly accessible site on the

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Water systems continue to devise wellhead protection plans

By Beverly Oliver
Division of Water

More than 300 public water systems in Kentucky, serving approximately 566,000 people, rely on groundwater as a source of their raw water and must develop wellhead protection plans.

Wellhead protection is the prevention of contamination of groundwater by managing potential contaminant sources within a designated land area around a well or spring. The Safe Drinking Water Act requires states to adopt a Wellhead Protection Program (WHPP) to protect public water supply wells and springs from contamination. The U.S. Environmental Protection Agency approved Kentucky's WHPP in September 1993.

A wellhead protection plan is composed of two phases. Phase I includes forming a planning team and delineating the source water protection area. Phase II includes a contaminant source inventory, development of a management strategy for the wellhead protection

area, and planning for the future. Fifty of Kentucky's public water systems have completed Phase I, and 17 systems have completed Phase II.

To aid these water systems in informing and alerting the public about these sensitive wellhead areas, the Division of Water has developed a "Water Supply Protection Area" sign program. The signs are used as management tools in wellhead protection areas and other source water protection areas. They are posted along major roadways crossing wellhead protection areas to notify motorists that they are entering a wellhead protection area. They also provide an 800 number to call in case of a spill.

The signs were initially placed in three wellhead protection communities. They have now spread to 25 communities where wellhead protection areas have been delineated. Watch for these signs along roadways across Kentucky.



Photo by Beverly Oliver

Citizens and agencies work together in Licking and Salt river watersheds

By Maleva Chamberlain
Division of Water

Phase I activities in the Licking and Salt river watersheds concluded with issuance of status reports on the two watersheds. Phase II activities of the five-year watershed management cycle have been initiated with the preparation of a strategic monitoring plan for the two watersheds.

The two status reports provide information about the condition of waterways in the Licking River and Salt River management units. They also tell what residents of the areas can do to help protect their watersheds and where to look for more information.

The state's new watershed management initiative stresses public involvement and participation. The two reports, *The Licking River Region in Kentucky: Status and Trends* and *State of the River, A report on the condition of the Salt River watershed, Kentucky, and the minor Ohio River tributaries in the area* were produced as the first activity under Phase I of the Watershed Management Framework in each of the two watersheds. They were produced by technical and lay volunteers who live in each of the regions.

The reports are meant to provide the public with background information on the watersheds.

The **Licking River** *Region in Kentucky: Status and Trends* includes a description of the watershed, water quality summaries, and maps and descriptions of land uses in the region, along with

information on the pollutants and activities that have caused problems for streams in the watershed. This report also covers some smaller watersheds along Kentucky's northern border on the Ohio River.

State of the River, A report on the condition of the Salt River watershed, Kentucky,

and the minor Ohio River tributaries in the area

includes a description of the watershed, sections about each of the subwatersheds (Upper and Lower Salt River watershed, Floyds Fork watershed, Rolling Fork watershed, and minor Ohio River tributaries, including Beargrass Creek, Harrods Creek, Sinking Creek, and Doe Run), and water quality summaries.

It also includes a table that provides information on the pollutants that have caused problems for streams in the watershed. Maps within the report show the land use within each watershed, while the text describes activities that impact the streams in that watershed.

Watershed management activities were begun in these two watersheds in 1998. The Licking River region covers all or parts of Bath, Boone, Bourbon, Bracken, Campbell, Carroll, Clark, Elliott, Fleming, Gallatin, Grant, Harrison, Kenton, Lewis, Magoffin, Mason, Menifee, Montgomery, Morgan, Nicholas, Pendleton, Robertson, and Rowan counties. The Salt River watershed covers all or parts of Anderson, Boyle, Breckinridge, Bullitt, Carroll, Casey, Hardin, Henry, Jefferson, LaRue, Marion, Meade, Mercer, Nelson, Oldham, Shelby, Spencer, Trimble, and Washington counties.

However, a watershed does not strictly follow political boundaries; a watershed is the land across and under which water flows on its way to a stream, river, lake, or other water body.

Watershed management focuses on the resource itself. Through interagency coordination, it seeks to

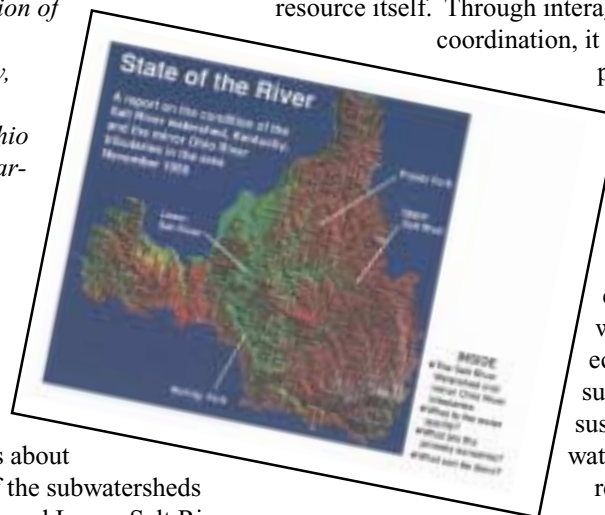
protect and enhance public health and safety, conserve and enhance watershed ecosystems, support sustainable watershed resource use that

meets water quality standards and conservation goals, preserve and enhance aesthetic and recreational values of the watershed, reduce or prevent pollutant loading and other stressors, and provide adequate water supply to support sustainable human use and ecological integrity.

Activities were begun by the release of a similar report in the Kentucky River watershed in late 1997. Activities in the Cumberland and Lower Tennessee river watersheds will be initiated in the summer of 1999.

For a copy of the *Licking River Region in Kentucky: Status and Trends*, contact Pamla Wood, Licking River watershed coordinator, at the Kentucky Division of Water, 14 Reilly Road, Frankfort, Ky. 40601, or telephone (502) 564-3410.

For a copy of *State of the River, A report on the condition of the Salt River watershed, Kentucky, and the minor Ohio River tributaries in the area*, contact Allison Shipp, Salt River watershed coordinator, U.S. Geological Survey, Louisville, (502) 493-1942. Both reports



Kentucky River watershed activities include intensive monitoring

By Lee Colten
Division of Water

Activities in the Kentucky basin management unit continue, with the Kentucky River Authority (KRA) playing a key leadership role. The KRA has hired Dr. Lindell Ormsbee, Water Resource Research Institute, to serve in a technical advisory role and has funded a full-time position for carrying out the basin coordinator functions under Director Stephen Reeder's leadership. Additionally, the KRA has agreed to fund the Kentucky River Watershed Watch for an additional year of sampling. This is the successful citizen-led monitoring effort that has trained more than 100 volunteers

in the basin and collected water quality samples throughout the basin.

Other activities in the basin include completion of a round of public meetings in three regions of the basin. These public meetings were designed to bring together individuals living in the watershed to discuss their concerns and desires for the basin's management and protection. This information will feed into a priority-setting process that will determine where agency efforts and funding will be targeted for protection and restoration in the basin.

Additionally, a full year of intensive monitoring by an interagency group has been completed across the basin. This interagency effort included some 10 agencies that cooperatively planned and

carried out a year-long effort to identify problems in the basin. This first-ever cooperative monitoring effort will lead to about three times the amount of data collected under previous independent efforts.

Now that the data has been collected, agency personnel have been analyzing it for presentation in a basin assessment report, due out later this fall. These assessments also fulfill the Division of Water's requirement under Section 305(b) of the Clean Water Act to report to Congress on the quality of the waters of the Commonwealth.

For additional information on activities in the Kentucky River basin, contact Dr. Ormsbee (606) 257-1302 or the Kentucky River Authority (502) 564-2866.

Water supply plans due by July 15

By Maleva Chamberlain
Division of Water

After the drought of 1988, the 1990 General Assembly accepted a recommendation of a Water Supply Task Force and passed legislation requiring water suppliers to develop long-range water supply plans by July 15, 1998. That date was later amended to July 15, 1999.

Forty-three counties had received approval for both Phase I and Phase II of their plans as of May 21, 1999. On that date 30 more counties had received approval for Phase I and had submitted Phase II. Twenty-nine counties had received approval for Phase I but had not submitted Phase II, seven counties had submitted Phase I, and 11 counties had not submitted any plans.

If a county does not have an approved plan by July 15, it will not be eligible for approval of any local projects that impact water and are submitted to the Kentucky intergovernmental review process.

Guidelines developed by the Division of Water and set out by regulation in 1992 require each county

to submit its plan in two phases:

Phase I involves data collection and analysis in order to project which water systems will have adequate water supplies for the next 20 years.

Phase II includes: (1) plans to supply that quantity of water, (2) plans to prevent contamination from reaching the water supply source, (3) emergency response plans if contamination of the supply should occur, and (4) drought management plans for the water supply.

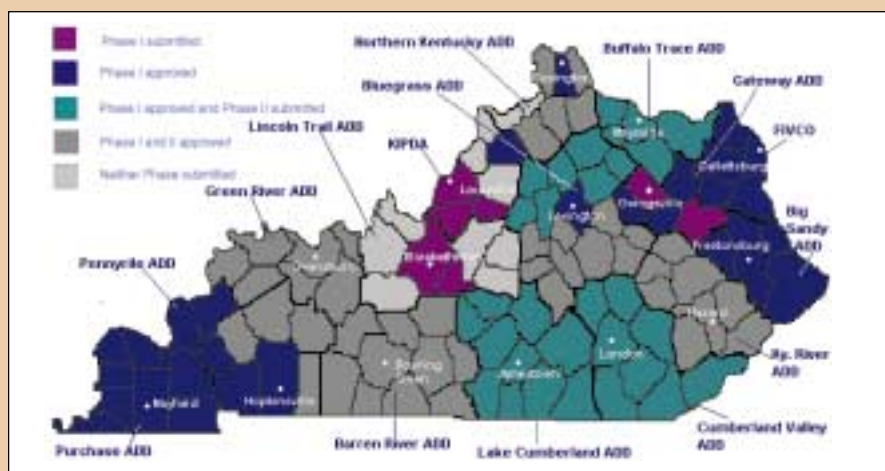
With the exception of Fayette and Jefferson counties, county plans are being developed by Area Development Districts (ADDs) with the guidance of local planning councils. Each local planning council is made up of local officials, water system

operators, and interested citizens. Most ADDs have received partial state funding to assist them in their efforts.

Once plans are finished and approved by the local planning council and the Division of Water, the plans are to be available for viewing at all county judge-executives' offices, ADD offices, and Division of Water regional offices.

To check the status of water supply plans for your county, check this World Wide Web address: <http://water.nr.state.ky.us/wsp>

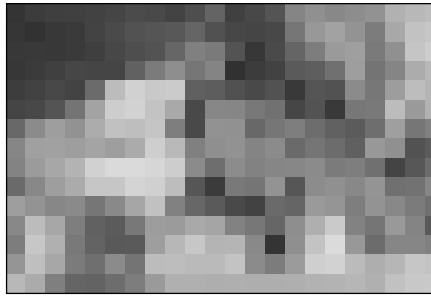
This site is updated whenever there is a change in water supply planning status for any counties.



Drinking Water State Revolving Fund provides money for various projects

By Maleva Chamberlain
Division of Water

A revolving loan fund to help drinking water systems achieve compliance was contained in one of the 1996 amendments to the Safe Drinking Water Act. The U.S. Environmental Protection Agency (EPA) provides funds to each state, and the state must match them. The state then disperses these funds as loans through a priority list developed through use of a prioritization formula. Kentucky expects to receive \$11,373,500 from the EPA for Federal Fiscal Year (FFY) 1999 to help fund Kentucky's Drinking Water State Revolving Fund (DWSRF). This amount, added to the \$10,851,600 that has been submitted for approval for FFY 1998 and the \$12,558,800 approved for FFY 1997, will bring the total of EPA grant money to \$34,783,900. State matching funds will bring the grand total to \$41,740,680 (see figures below).



	EPA Grant	State Match	Total
1997	\$12,558,800	\$2,511,760	\$15,070,560
1998	\$10,851,600	\$2,170,320	\$13,021,920
1999	\$11,373,500	\$2,274,700	\$13,648,200
Total	\$34,783,900	\$6,956,780	\$41,740,680

The Kentucky Division of Water develops an Intended Use Plan for these funds each year. The plan is circulated for public comment, and a public hearing is also held to collect more public input. Once completed, the plan must be submitted to EPA for approval.

Proposed infrastructure projects must be planned because the system is in violation of drinking water standards and the project will bring it into compliance for public health purposes. Funds may not be used when the primary purpose of the project is growth. Infrastructure funding levels are:

1997	\$12,182,036
1998	\$11,502,696
1999	\$12,128,976 (expected)
Total	\$35,813,708

DWSRF funds support the following environmental programs: county water supply plans, source water assessment and delineation, wellhead protection, capacity development, public water supply supervision, and land acquisition for source water protection. Funding levels for these programs are:

1997	\$2,888,524
1998	\$1,519,224
1999	\$1,519,224 (expected)
Total	\$5,926,972

The interest rates on the loans are low. Currently, for July 1, 1998 - June 30, 1999, they are 3.8 percent; hardship rates are 1.8 percent. Eligible borrowers, which may include governmental agencies other than federal, must demonstrate technical, managerial, and financial capacity. The proposed project must be needed to protect public health or to comply with drinking water standards, and it must be listed on the DWSRF Priority List.

Citizens and agencies work together in Licking and Salt river watersheds

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are also available on the World Wide Web at <http://water.nr.state.ky.us/dow/watrshd.htm>

The **strategic monitoring plan** details what will be sampled for, where, and by whom in the two watersheds during the period from April 1999 to March 2000. It describes statewide monitoring networks that already exist, what agencies are responsible for within those networks, what new sites have been selected for monitoring during the next year, what constituents will be sampled for at the various sites, and why the sites were chosen.

Teams of residents of each watershed, along with representatives of the various agencies responsible for conducting the monitoring, conferred to decide on the strategy. Information from the status reports was used to help devise the monitoring plan.

Results of the year's monitoring efforts will be available in the fall of 2000.

In Phase III (2000) of the watershed management activities in the two watersheds, teams will use all the information to identify subwatersheds in most urgent need of attention. Watershed management plans and action strategies will be developed in Phase IV (2001), and management plans will be implemented in Phase V (2003).

For a copy of the strategic monitoring plan, contact Pamla Wood or Allison Shipp at the previously listed addresses or phone numbers. The monitoring plan may also be found on the Watershed Management web site at <http://water.nr.state.ky.us/dow/mon.htm>

For more information about Kentucky's Watershed Management initiative, copies of the status reports, the strategic monitoring plan, or other activities, contact Lee Colten, Watershed Framework coordinator, at the Kentucky Division of Water, 14 Reilly Road, Frankfort, Ky. 40601, or telephone (502) 564-3410.



Risk plan deadline approaches

Businesses and industries that handle substances posing potential risks to surrounding communities face a June 21, 1999, deadline to submit risk management program summaries to the U.S. Environmental Protection Agency (EPA). Section 112(r) of the Clean Air Act Amendments of 1990 required these actions to prevent and resolve accidental releases of harmful chemicals.

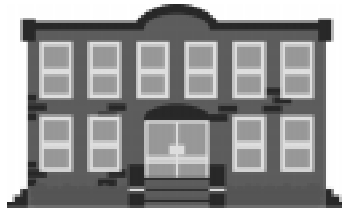
The risk management program includes development of a risk management plan. Where off-site consequences from an accidental release can be substantial, more detailed planning is required. A written summary of each plan must be submitted to EPA's Risk Management Plan Reporting Center. State and local government agencies, community officials, and the public will have access to the plan, which will provide information on chemical hazards and will identify precautions that will be taken to control them.

The Division for Air Quality expected to complete adoption of EPA's rule in June. The rule will be in state regulations 401 KAR 68:010 - 68:200. Upon adoption, the state regulations will enable Kentucky facilities to work with the state agency rather than EPA. Division staff have coordinated outreach and implementation efforts with several other agencies includ-

ing the Division of Emergency Management, the Kentucky Business and Environmental Assistance Program (KBEAP), and with various trade associations.

For more information, call the division's Special Programs Branch at (502) 573-3382 or KBEAP at (800) 562-2327.

Kentucky requests U.S. EPA approval of Asbestos-in-Schools program



The Division for Air Quality has requested U.S. EPA approval of Kentucky's Asbestos-in-Schools program. Kentucky's program will become the first in the Southeast and the seventh in the nation to receive the U.S. Environmental Protection Agency's (EPA) approval. The approval will mean the Division for Air Quality has demonstrated it has adequate resources and procedures to operate the program. It also will mean that the Division for Air Quality, instead of the EPA, will oversee the rules that require schools to be safe from asbestos hazards.

The federal Asbestos Hazard Emergency Response

Act (AHERA) and state regulation 401 KAR 58:010 require school systems to have their buildings inspected for asbestos. If asbestos is found, strategies must be developed for managing the asbestos safely. The inspection findings and management strategies must be done by state-accredited professionals and documented in an asbestos management plan that must be made available to the public (EPA approved Kentucky's accreditation program in 1998).

Schools must also designate and train a person to help them comply with the rules. This requirement helps control asbestos hazards and promote cooperation with the Division for Air Quality. With partial funding from EPA and at no cost to Kentucky schools, the division provided training throughout the state this spring for school asbestos coordinators.

The division has reviewed management plans for all of the state's nearly 4,000 school buildings. About half of these buildings have asbestos in them. Asbestos can be safely managed through compliance with the school asbestos rules. In addition to the division's central office in Frankfort where school management plans are reviewed, inspectors from the division's eight regional offices visit schools to provide compliance advice and to make sure asbestos materials are being managed safely.

Construction begins on vehicle emission testing stations in Northern Kentucky

Construction began in early 1999 on three buildings that will house the vehicle emissions testing program in Northern Kentucky. The Division for Air Quality plans to test vehicle emissions in Boone, Campbell and Kenton counties in an effort to control smog problems in Northern Kentucky and Cincinnati. Testing locations are in areas that allow easy access to vehicle owners.



The station locations being built by Envirotest Systems Corp., the project contractor, are Boone County - 5760 Constitution Drive off KY 18 between Florence and Burlington; Campbell County - 1426 Gloria Terrell Drive south of I-275 in Wilder; and Kenton County - 2029 Rolling Hills Drive off KY 17 south of I-275 in Covington.

The program, which will go into effect in the fall of 1999, will require Northern Kentuckians to get the tailpipe test once every two years at a cost of \$20. Once a vehicle passes the test, it is eligible to receive its registration. If it

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Scott Roaden, president of Kentucky Woodcrafts Company, Inc., McKee, Ky., is standing next to a stack of unfinished letter trays, a company product in process. Roaden said, "The Technical Assistance Program was proactive and well informed on environmental issues. I was able to make better business decisions with the information provided by the TAP." Photo by Rose Marie Wilmoth

The amendments include provisions that direct each state to establish a program to assist small businesses with regulatory requirements under the act.

The businesses that will be featured in

Company President Scott Roaden focuses on achieving the best utilization of his employees, his space, and by-products from the manufacturing lines. His desire to use materials and space efficiently led him to call the TAP.

Although Mr. Roaden was already implementing a number of "best utilization" techniques in his company, "The TAP gave me additional information that helped complete my plan," he said.

Results of his efforts include generation of much smaller amounts of scrap and waste pieces that remain and are sold for kindling or hobby uses. The building that houses the business and Mr. Roaden's

Three Kentucky businesses receive assistance from TAP

By Rose Marie Wilmoth
Air Rep. for Small Business

The Department for Environmental Protection is preparing a new publication to present the stories of three additional Kentucky small businesses that have received compliance assistance from the Technical Assistance Program (TAP). Since 1994, the TAP's services have been provided by the Kentucky Business Environmental Assistance Program through a Memorandum of Agreement between the University of Kentucky and the Division for Air Quality (DAQ).

The program was designed by the state DAQ to comply with the federal Clean Air Act Amendments of 1990.

the publication and their locations are Kentucky Woodcrafts Company, Inc., McKee; Old Kentucky Leathers, Inc., Franklin; and POLYAIR Packaging, Bardstown.

Since all clients of the TAP are provided confidentiality, it is important to note that these companies volunteered to describe their experiences with the program. This publication differs from the first because it includes more information on the DAQ regional offices that have become an increasing source of referrals.

One of the success stories features Kentucky Woodcrafts Company, Inc. Kentucky Woodcrafts uses primarily walnut and mahogany to make small wood products such as plaques, trophy bases and executive gift items.

home is heated with the wood shavings that are generated during production. This significantly reduces the quantity of waste to be disposed by the business.

On the value of the TAP, Mr. Roaden said, "A small manufacturing company in a rural community needs this type of service. Assistance from universities or consulting firms is not as readily available as in more urbanized areas. The assistance from the program is a tremendous opportunity for a small company."

Copies of "Success Stories 2" will be available in July by calling Jackie Beach, Commissioner's Office, Dept. for Environmental Protection at (502) 564-2150. To request help from the Technical Assistance Program, call the University of Kentucky at (800) 562-2327.

Nominations sought for Small Business Air Quality Stewardship Award

The Small Business Stationary Source Compliance Advisory Panel is seeking nominations for the second annual Small Business Air Quality Stewardship Award. More than one award may be given. The award will recognize the commitment of a Kentucky small business to air quality stewardship.

The Advisory Panel is part of a program that was designed by the Division for Air Quality to comply with the federal Clean Air Act Amendments of 1990. The amendments include provisions that direct each state to establish a program to assist small businesses in complying with new regulatory



requirements under the act.

The 1999 award will recognize exemplary performance in one or more of the following areas: pollution prevention, reducing emissions, emission control, and/or community air quality leadership. A luncheon to honor the winner or winners

will be held at the Lieutenant Governor's Mansion on Sept. 20, 1999.

Individuals, businesses and organizations may nominate themselves or others for this award. Nominations will be evaluated by a committee of Advisory Panel members.

To request an application form, contact Jackie Beach, Commissioner's Office, Dept. for Environmental Protection at (502) 564-2150 or download the form at <http://www.nr.state.ky.us/nrepc/dep/smbizair/index.htm>

Applications were made available on May 1, 1999, and must be postmarked by July 1, 1999.

Federal NOx SIP call slated for implementation in Kentucky

By Ken Hines
Division for Air Quality

The Division for Air Quality published six proposed or amended regulations in the May 1, 1999, *Administrative Register* that, if adopted, will be used to implement the NOx SIP call in Kentucky. The U.S. EPA issued the NOx SIP call to reduce ozone pollution in the eastern half of the country. It mandates that state and local air quality agencies correct deficiencies in their State Implementation Plans (SIPs) for achieving and maintaining the National Ambient Air Quality Standards for ozone by reducing nitrogen oxides (NOx) emissions.

The U.S. EPA intends to reduce NOx emissions throughout the Eastern United States by about 1.1 million tons per ozone

season (May 1 through Sept. 30 each year). Kentucky's share of the reduction is more than 75,000 tons per ozone season. The proposed regulations seek most of the emission reductions from electric power plants. The regulations also target NOx reductions from large stationary internal combustion engines, large cement kilns, and industries operating large boilers or turbines.

The NOx SIP call may provide some economic benefits to portions of the state. Many areas throughout Kentucky are expected to exceed the new ozone standard. Under the NOx SIP call, few if any emission reductions will be required from industries inside those areas until the impact of the NOx reductions can be evaluated. The U.S. EPA expects the NOx reductions required by the SIP call to

achieve the eight-hour ozone standard almost everywhere in the Eastern United States, and therefore has no need to seek additional reductions in most localities.

The proposed rules require all affected sources to achieve the NOx emission reductions before the ozone season begins in the year 2003. Like the previously adopted acid rain program, the NOx SIP call allows sources to sell or buy emission credits. The same overall NOx reduction (1.1 million tons) will occur throughout the region, but the distribution of the reductions will be allowed to occur where they are most technologically achievable and economical.

Questions regarding the NOx SIP call may be directed to Kenneth Hines or Hank Wiseman, Kentucky Division for Air Quality, at (502) 573-3382.

Florence Regional Office relocates

By Janet Goins, Dept. for Environmental Protection

The Florence Regional Office of the Department for Environmental Protection has moved! The new address is 8020 Ewing Boulevard, Florence, Ky. 41042. The telephone number remains (606) 292-6411.

The building is located in the new government complex of the city of Florence. This move is a culmination of efforts by the department, the Finance Cabinet, and the city of Florence. Grand opening ceremonies were held for this facility on Feb. 24, with a representative from the Governor's Office and the mayor of the city of Florence attending.

Efforts to relocate to more suitable office space, which was desperately needed to relieve severely overcrowded conditions, began in 1990. The office had been located in a renovated metal storage building that housed multiple tenants, including retail and industry. The department had long ago outgrown this facility. However, numerous advertisements for replacement office space and other efforts were unsuccessful.

Approximately two years ago, the

city of Florence submitted a proposal to the Division of Real Properties to construct a government complex on Ewing Boulevard. This proposal provided for multiple buildings in a campus-type setting to make government services more accessible to the citizens of the Commonwealth. The first building was constructed to house the city's government offices, including the mayor's office, and opened in the summer of 1998. Construction of the second building started in the fall of 1998. It now houses state government offices, including the DEP Florence office. Future plans include a third building and a park.

The department participated in the design phase of this project, so the facility meets the unique needs of the agency. It contains a state-of-the-art biological testing laboratory and storage for monitoring and testing equipment as well as general offices for employees. Staff were moved to this facility in mid-January. The relocation will allow staff to better serve the Northern Kentucky area to protect the air, land, and water resources of the Commonwealth.



Florence Regional Office on Ewing Boulevard. Photo by Anya Armes Weber

Construction begins on vehicle emission testing stations in Northern Kentucky

Continued from Page 16

fails, repairs must be made to reduce emissions.

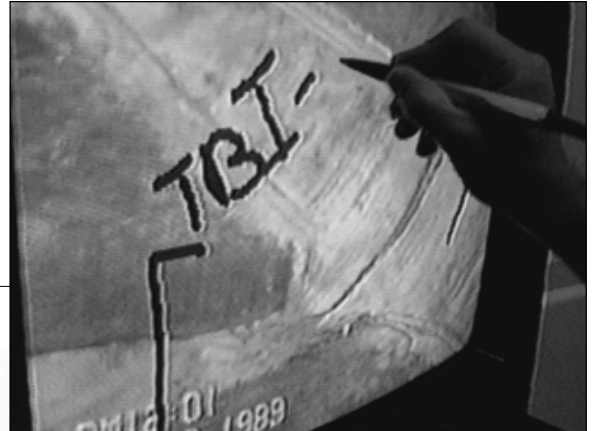
The division will conduct an outreach effort this summer to inform Northern Kentucky residents of the emission testing requirement and the procedures to follow. Questions about the program may be directed to DAQ's Special Programs Branch at (502) 573-3382 or to the Northern Kentucky Emissions ✓ Check hotline's 800 number, once it is activated in August.



Reclamation inspectors get the big picture

By J. Hamon,
Dept. for Surface
Mining Reclamation
and Enforcement

Photos by J. Hamon

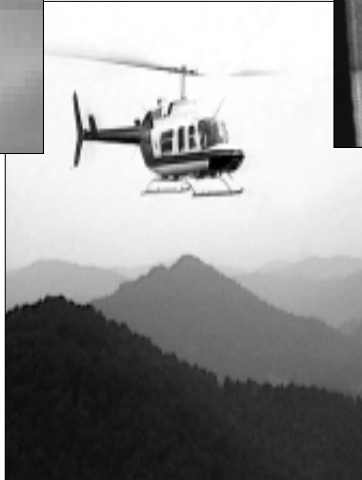


A thump-thump-thump echos down the valley, the common sound of an approaching helicopter. It may be the Department for Surface Mining Reclamation and Enforcement (DSMRE) inspectors flying over mine sites. Several times each year, the blue and white Bell Long - Ranger helicopter visits each regional office to give inspectors an aerial perspective of their inspection area. This low, slow flying machine is an excellent way to take photographs and videotapes documenting environmental conditions.

Aerial Overflight Program

Kentucky is the leader of the coal producing states in using aviation for the inspection and enforcement of surface mining regulations. Since the department's beginning, aerial survey photographs obtained by fixed-wing aircraft have been used to develop mine maps. During the 1970s, occasional helicopter flights proved the value of an aerial inspection. Illegal operators, mining without a permit, were often undetectable from the roadway. Many "wildcatters" were discovered in the act and prosecuted as a result of aerial inspections. In 1988, the department purchased a helicopter, video equipment, and hired a small staff to pursue the development of an aerial overflight program dedicated to surface mining.

These aerial flights have enabled the DSMRE to cover every inch of mine sites to inspect for compliance with the 1977 federal Surface Mining Act. Often on a large mountaintop and contour mines the outside slopes are hard to see from the



ground. However, by using the helicopter and state-of-the-art digital video cameras to record the inspection, nothing is hidden from view. After returning to earth, the inspector, supervisor, and management personnel meticulously review each videotape looking for existing problems and potential threats to the environment.

During the review process, a device called the video-writer notes each area where violations have been cited and areas where additional on-ground scrutiny is needed. All video-writer images are recorded on disk and edited into a master tape with a non-linear editing system. These tapes are kept in a video library at the DSMRE office in Frankfort.

Several video recordings are made at different times during the operation of all permitted surface mines. This documentation comes in handy when questions arise about the mine. A large library of videotapes has been produced documenting active mining and reclamation activities around the state. Reprints are available to the public for a small fee to cover materials and shipping.

The aerial videotapes produced from

the helicopter are a rich resource for the Division of Permits. The permit reviewer must make certain the mine plan will best address the specific issues related to mining and reclamation on each site. A real life view is always better than a verbal description or lines drawn on a map. Unfortunately, time constraints and transportation costs do not allow each reviewer to personally visit the mine site. The aerial overflight program provides a 'big picture' of the area without travel, allowing the reviewer to be more efficient and productive.

Natural Resources and Environmental Protection Cabinet Secretary James Bickford and DSMRE Commissioner Carl Campbell use the aerial flight team when potentially life-threatening situations such as landslides or deep mine blowouts occur. An aerial perspective is the best way to quickly document site conditions and develop a corrective plan of action. If DSMRE observes violations or situations that threaten the environment and are not surface mine related, the nature of the problem and location of the area are relayed to an appropriate agency in the cabinet.

The Aerial Overflight Program has become an effective tool for the department, the federal Office of Surface Mining, and citizen's groups to verify that environmental violators in the coalfields are being found and the violations resolved.

The next time you hear that distinctive sound look up. It just might be a blue and white helicopter with a DSMRE inspector patrolling an inspection area.

Think safety around abandoned mine sites

There are over 500,000 active and abandoned mines and quarries in the nation. Most of the sites were worked before laws were enacted to insure that the areas would be safe after the mining was completed. Some of these abandoned sites contain hazards such as open pits, water impoundments, and underground mines that may not have breathable air to sustain life. Active mines operate large equipment and conduct blasting operations that can be fatal to people who are unaware of the danger and enter without authorization. Mines and quarries may be near your home or your favorite vacation spot. This summer make sure your children are aware of the danger. Please promote "Stay Out and Stay Alive." For further information on this issue, the DSMRE invites you to visit its web site at <http://kydsmre.nr.state.ky.us>



Kentuckians honored at Earth Day ceremony in Frankfort

By Leslie Cole, Environmental Quality Commission

The Kentucky Environmental Quality Commission (EQC) recognized state, local, business, and citizen leaders in celebration of the 29th anniversary of Earth Day on April 22 at the Berry Hill Mansion in Frankfort, Ky.

EQC honored these Kentuckians for their outstanding service, commitment and dedication to protecting the environment. The 1999 EQC Earth Day award winners are:

State Rep. Greg Stumbo (Prestonsburg) - for his leadership on environmental issues during the 1998 General Assembly.

Kid Doodles Play and Learn Center (Winchester) - for teaching preschool children through songs, games, and activities to recycle and reuse items at home and at school.

Harlan Revitalization Association (Harlan) - for the economic development group's efforts to protect the unique and diverse environment in Harlan County.

Cherokee Triangle Neighborhood Association (Louisville) - for the group's efforts to promote waste reduction, recycling, and reuse practices at the annual Cherokee Triangle Art Fair.

Harrison Environmental Action Team (Cynthiana) - for converting an eyesore behind the Harrison Area Technology Center into an environmental education center for students of Harrison County.

Sandy Adams, Pam Seamands, Linda Greenlief and the 4th-Grade Class of Rosenwald-Dunbar Elementary School (Nicholasville) - for the Black Mountain learning project and efforts to protect Kentucky's highest peak.

Garnett M. Skaggs (Blaine) - for instilling an environmental ethic in her students at Blaine Elementary School.

Continental General Tire (Mayfield) - for establishing an on-site recycling center to segregate and process material from the plant for recycling, diverting 41 percent of waste material from the landfill.

Gary Epperson (Winchester) - for his efforts as county solid waste coordinator to promote proper solid waste management in Clark County.

Michael A. Mills, Bluegrass Regional Recycling Corporation (Lexington) - for his efforts to promote recycling in the Bluegrass region.

1998 Fall Haul Planning Committee (Fayette, Scott, Bourbon, Madison, Jessamine counties) - for joining together in a private/public partnership to collect and dispose of household hazardous wastes.

Russell Miller (Campton) - for his efforts to clean up a 9-mile segment of the Red River.

EQC Earth Day Public Servant Award - U.S. Congressman Harold "Hal" Rogers and Secretary James E. Bickford, Kentucky Natural Resources and Environmental Protection Cabinet - for their leadership in creating the PRIDE initiative and efforts to clean up Eastern Kentucky.



Rosenwald-Dunbar 4th-Grade Class.
Photo provided by EQC

Consumer confidence report rule *Continued from Page 12*

Internet. If the system serves a population of fewer than 10,000, it may deliver the report directly to its billed customers, or it may publish the report in one or more local newspapers, inform billed customers the report will not be mailed, and let them know how they may obtain a copy. If the system serves a population of fewer than 500, it may use one of the preceding methods or provide notice that the report is available upon request.

For more information, contact your community water system or Ralph Schiefferle, Drinking Water Branch of the Kentucky Division of Water, (502) 564-3410, or e-mail Ralph.Schiefferle@mail.state.ky.us or Dan O'Lone, EPA Region IV, (404) 562-9434 or e-mail olone.dan@epamail.epa.gov. You can also find information on the World Wide Web at www.epa.gov/OGWDW/ccr/ccr1.html

Bobcats will be traveling down the road in January

By Joe Dietz
Dept. for Natural Resources

In January 2000 you will be able to have a bobcat on your car. The Kentucky Heritage Land Conservation Fund Board (KHLCFB) recently completed its campaign to select the next nature license plate. The bobcat will join two current nature plates—the Kentucky Warbler on a tulip poplar branch and the cardinal on a coffeetree branch.

In an effort to reach as many Kentuckians as possible, ballots were sent to public libraries, county clerks' offices, and Kentucky state parks. Electronic voting was available on the Internet. Nature plate displays were set up at malls, several home and garden and outdoors shows. A toll-free number was made available for telephone ballots. Over 9,000 votes were cast by the March 31, 1999, deadline.

Contestants were allowed to vote for a viceroy butterfly on a goldenrod stem, a bobcat, a white-tailed deer, or a Kentucky bass. After the vote was tallied, the bobcat won with 2,886



votes. Surprisingly, the votes were quite close. The white-tailed deer had 2,478 votes; the viceroy butterfly had 2,469; and the Kentucky bass had 1,600.

The nature plate costs \$10 over the price of a regular Kentucky license plate. These funds are used for the purchase and management of nature preserves, wildlife management areas, state parks, recreation and environmental education areas, state forests, wild river corridors, and wetlands. As of March 31, 1999, over 4,200 acres in 17 counties have been purchased. The next time you renew your license plate, request a nature license plate. The \$10 is tax deductible and you will be helping preserve some of "Nature's Finest." For additional information, contact Joe Dietz at (502) 564-2184 or joe.dietz@mail.state.ky.us.



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